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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
KIM, TAEYOON	
ART UNIT	**PAPER NUMBER**
1651	

NOTIFICATION DATE	DELIVERY MODE
10/23/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTOMail@traskbritt.com

Office Action Summary	Application No.	Applicant(s)	
	10/646,615	HENNEN, WILLIAM J.	
	Examiner	Art Unit	
	Taeyoon Kim	1651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-18,50 and 53-78* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-18,50 and 53-78* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/20/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1, 4-18, 50, 53-78 are pending.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/20/2007 has been entered.

Claim Objections

Claims 9, 12, 15, 58, 61, 64 and 68 disclose Markush type species. M.P.E.P. §2173.05(h) states "Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being "selected from the group consisting of A, B and C." See Ex parte Markush, 1925 C.D. 126 (Comm'r Pat. 1925).

Claim 75 is objected to because of the following informalities: the articles in front of arginine and lysine appear to be inappropriate, unless the composition contains a single molecule of arginine or lysine. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4-18, 50, 53-67 and 69-73 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "directly causes a cardiovascular disorder" in claim 1 and its dependent claims is not clearly pointing out what subject matter the phrase intends to claim. Neither specification nor the claims disclose the scope of "directly causes a cardiovascular disorder". It can be interpreted as a pathogen, which will cause a cardiovascular disorder without an exception upon infection, or any pathogen infecting vascular cells and causing a defect in blood vessel.

The phrase "treated with the composition" and the term "treated" in claims 1 and 50, and their dependents does not clearly point out what the term is intended to claim. It is not clear whether the cardiovascular disorder requires prior treatment with the composition comprising transfer factor, the disorder treated with any other means prior to the use of the composition, or the disorder would be treatable with the composition. Apparently this phrase and the term mean a cardiovascular disorder caused by a pathogen, and the disorder would be treated by the composition comprising transfer factor specific for the pathogen. Applicant is recommended to amend the phrase such as changing "a cardiovascular disorder" in line 5 to "the cardiovascular disorder", or "a cardiovascular disorder, wherein said disorder is treatable with the composition...", and also line 6 of "the treated cardiovascular disorder" to "the cardiovascular disorder".

The terms "a form of arginine" and "a form of lysine" in claims 68 and 69 do not clearly point out what subject matter these terms intend to claim. It can be interpreted

any material comprising arginine or lysine, any derivatives of arginine or lysine, or different stereotypes of these amino acids such as L-form or D-form. Clarification is required.

Claims 77 and 78 are drawn to the limitations to arginine and lysine comprising magnesium arginate and magnesium lysinate, respectively. It is well known in the art that arginine and lysine are the single amino acids and not compositions comprising magnesium arginate or magnesium lysinate, respectively. Therefore, it is not clear what the limitation of the claims intends to point out. The claims can be interpreted that the arginine or lysine in the composition is derived from magnesium arginate or magnesium lysinate, respectively, or magnesium arginate and magnesium lysinate are in the composition. For the examination, the claims are interpreted as arginine and lysine are derived from magnesium arginate and magnesium lysinate, respectively.

Since the specification discloses magnesium lysinate and magnesium arginate as lysine-containing and arginine-containing compound, applicant is recommended to revise the claim term "a lysine" and "an arginine" in claim 75 to "lysine or lysine-containing compound" and "arginine or arginine-containing compound", and further limit the lysine-containing compound and the arginine-containing compound as magnesium lysinate and magnesium arginate, respectively.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 4-8, 10-18, 50, 53-57 and 59-67 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The current application generically claims a composition comprising any transfer factor specific for any pathogen or any antigen of the pathogen that directly causes a cardiovascular disorder, comprising known pathogens as well as yet-to-be identified pathogens, and variants/mutants of the pathogens, however the specification does not contain an adequate description for the entire scope of this limitation and thus the claims. Furthermore, the scope of "a cardiovascular disorder", which is understood as any disorder related with any blood vessel as disclosed in the specification (see paragraph [0003]), is so broad to encompass any pathogen causing a defect in blood vessel. Considering the scope of the term "cardiovascular disorder" and the limitation of "directly causing a cardiovascular disorder", the specification does not fully disclose the entire scope of pathogens directly causing a cardiovascular disorder.

The claims are essentially of limitless breadth. It is implied that so long as the specification provides one with the ability to test any particular embodiment which is encompassed by the material limitations of a claim, one can thereby distinguish between those embodiments which meet the functional limitations from those embodiments which don't. This argument is not entirely without merit. However, the issue here is the breadth of the claims in light of the predictability of the art as

determined by the number of working examples, the skill level of the artisan and the guidance presented in the instant specification and the prior art of record. This 'make and test' position is inconsistent with the decisions in In re *Fisher,* 427 F.2d 833,166

Breadth alone is not the issue, however. In re Fisher, 427 F.2d 833,166 USPQ 18 (CCPA 1970), held that: "Inventor should be allowed to dominate future patentable inventions of others where those inventions were based in some way on his teachings, since such improvements while unobvious from his teachings, are still within his contribution, since improvement was made possible by his work; however, he must not be permitted to achieve this dominance by claims which are insufficiently supported and, hence, not in compliance with first paragraph of 35 U.S.C. 112; that paragraph requires that scope of claims must bear a reasonable correlation to scope of enablement provided by specification to persons of ordinary skill in the art; in cases involving predictable factors, such as mechanical or electrical elements, a single embodiment provides broad enablement in the sense that, once imagined, other embodiments can be made without difficulty and their performance characteristics predicted by resort to known scientific law; in cases involving unpredictable factors, such as most chemical reactions and physiological activity, scope of enablement varies inversely with degree of unpredictability of factors involved."

The claims imply that other pathogens with the claim-designated properties can be found using the method disclosed in the specification without undue experimentation. Whether or not the disclosure provides an enabling disclosure, it does not provide a written description of the desired pathogen which is necessary to provide a written

description of the claimed pathogen. Every species in a genus need not be described in order that a genus meets the written description requirement. See Utter, 845 F.2d at 998- 99,6 USPQ2d at 1714 ("A specification may, within the meaning of §112, first paragraph, contain a written description of a broadly claimed invention without describing all species that claim encompasses.") In claims to a species from a genus, however, a generic statement without more, is not an adequate written description of the genus because it does not distinguish the claimed species of the genus from others. One skilled in the art therefore cannot, as one can do with a fully described genus, visualize or recognize the identity of the members of the genus. A definition by function, does not suffice to define the genus because it is only an indication of what the genus does, rather than what it is. See Fiers, 984 F.2d at 1169-71, 25 USPQ2d at 1605- 06 (discussing Amgen). It is only a definition of a useful result rather than a definition of what achieves that result. Many such species of the genus may achieve that result. The description requirement of the patent statute requires a description of an invention, not an indication of a result that one might achieve if one made that invention. See In re *Wilder,* 736 F.2d 1516,1521,222 USPQ 369,372- 73 (Fed. Cir. 1984) (affirming rejection because the specification does "little more than outlin[e] goals appellants hope the claimed invention achieves and the problems the invention will hopefully ameliorate."). Accordingly, naming a type of material generally thought to exist, in the absence of knowledge as to what that material consists of, is not a description of that entire material.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 7-15,17, 50, 56-64, 66 and 72-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Ramaekers (US 6,506,413) in view of Rath et al. (US 5,650,418), Tentolouris et al. (2000), Cholesterol-lowering drugs (http://www.americanheart.org/presenter.jhtml?identifier=4510), Focant et al. (1998), Gordon (1999), or Kirkpatrick (1975).

Claims 1, 7-15,17, 50, 56-64, 66 and 72-78 are drawn to a composition for treating a cardiovascular disorder comprising an inflammation-reducing component for decreasing inflammation in blood vessels comprising transfer factor specific for a pathogen or an antigen of a pathogen, or a pathogen-reducing component for decreasing pathogens in blood vessels comprising transfer factor specific for a pathogen or an antigen of a pathogen, with a blood flow-enhancing component; being mammalian transfer factor; the mammalian transfer factor comprising a colostrums extract; to limitations to an inflammation-reducing component or a pathogen-reducing component in the composition being specific for HSV-II; the composition further comprising an LDL receptor-binding component; the LDL receptor-binding component comprising lysine or lysine salt; the blood flow-enhancing component comprising arginine or nicotinamide; the composition further comprising antioxidant; the antioxidant

being hydrophobic; the hydrophobic antioxidant being vitamin E; the composition further comprising a cholesterol-reducing element.

Ramaekers teaches a composition containing mammalian transfer factor which would be antigen-specific (varicella antigen; column 1, lines 29-30) or pathogen-specific (herpes simplex virus; column 1, lines 21-22) from colostrums extract, arginine or nicotinamide (niacinimide), lysine, a hydrophobic antioxidant as well as a fat oxidation prevention element, vitamin E (see column 2; table 2), niacin (converted to niacinamide in vivo), a cholesterol-reducing element (see column 2, line 65). Ramaekers also discloses Vitamin C in the composition comprising transfer factor (see column 5, lines 23-25).

Although Ramaekers do not specifically teach that lysine as a LDL receptor-binding component, arginine being a blood flow-enhancing component, niacin (niacinamide) being a cholesterol-reducing element, or vitamin E, a fat oxidation prevention element, it is an inherent property of lysine/lysine salt, arginine, or niacin (niacinamide) having a property as a LDL receptor-binding component, a blood flow-enhancing component, or cholesterol-reducing element as supported by Rath et al. (U.S. Patent 5,650,418), Tentolouris et al. (see Abstract), Cholesterol-lowering drugs (http://www.americanheart.org/presenter.jhtml?identifier=4510; page 2), or Focant et al. (see Abstract), respectively.

Although Ramaekers does not specifically teach the intended use of the composition for cardiovascular disorders, the composition of Ramaekers containing an inflammation-reducing component such as transfer factor, a blood flow enhancing

component such as arginine and niacinimide, and a LDL receptor-binding agent such as lysine salt would intrinsically possess an ability to treat cardiovascular disorders as supported by Gordon (see page 3), Kirkpatrick (see Abstract) and Tentolouris et al. (see Abstract), respectively.

In regard to the limitation of to an inflammation-reducing component or a pathogen-reducing component in the composition being specific for HSV-II (claims 9 and 58), Ramaekers teaches transfer factor specific for HSV, and it is well known in the art that HSV encompasses HSV-I and HSV-II, a person of ordinary skill in the art would have once envisaged transfer factor specific for HSV-I or HSV-II for the composition of Ramaekers.

Therefore, the invention as a whole would have been prima facie obvious to a person of ordinary skill at the time the invention was made.

In response to the previous office action mailed on 3/20/2007, applicant argued that Ramaekers does not expressly or inherently describe a composition that includes preparation including avian transfer factor specific for at least one of HSV-I, HSV-II, Chlamydia pneumoniae, CMV and Helicobactor pylori along with other ingredients. Applicant is reminded that the limitations of non-mammalian/avian transfer factor in claim 4-6 and 53-55 were not rejected under the instant claim rejection (35 U.S.C.§103, rather than §102), and since the current rejection does not include claims 68-71, which have limitations to the transfer factor being avian transfer factor, this argument is moot.

However, in regard to the blood flow-enhancing component disclosed in claim 1 and 50, Ramaekers teaches arginine in the composition comprising a transfer factor

and arginine is known as a blood flow-enhancing component as taught by Tentolouris et al. Therefore, the arginine present in the composition of Ramaekers would inherently possess the same property to enhance blood flow.

Claims 4-6, 53-55, 68, 70 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramaekers (supra) in view of Tentolouris et al. (supra) in further view of Tokoro (US 5,080,895).

Claims 4-6, 53-55, 68, 70 and 71 are drawn to limitations to the transfer factor being non-mammalian; avian transfer factor; the avian transfer factor comprising an egg extract; a composition comprising avian transfer factor specific for HSV-II, vitamin C, niacinamide, an arginine-containing compound and a lysine-containing compound; a limitation to the arginine-containing compound being magnesium arginate, and the lysine-containing compound being magnesium lysinate; a limitation to transfer factor and vitamin C being equal amount.

Ramaekers in view of Tentolouris et al. teach a composition having transfer factor and a blood flow-enhancing component (arginine), nicotinamide, vitamin C and lysin, and the transfer factor being specific for HSV which includes HSV-I and HSV-II (see above).

Ramaekers in view of Tentolouris et al. do not teach that the transfer factor is non-mammalian, avian or from egg extract.

Tokoro teaches transfer factor from egg extract of immunized hen (see Examples).

It would therefore have been obvious for the person of ordinary skill in the art at the time the invention was made to replace the mammalian transfer factor of Ramaekers in view of Tentolouris et al. with the transfer factor from egg extract taught by Tokoro.

The skilled artisan would have been motivated to make such a modification because the production of transfer factor in a large amount from colostrums is difficult and limited due to its production is limited to a few days, and furthermore necessitates a vast farm land according to Tokoro (see column 1, lines 39-49).

The person of ordinary skill in the art would have had a reasonable expectation of success in replacing transfer factor of Ramaekers in view of Tentolouris et al. with that of Tokoro because the production of transfer factor and/or antibody from eggs of immunized hen has been successfully practiced in the art.

Therefore, the invention as a whole would have been prima facie obvious to a person of ordinary skill at the time the invention was made.

In the response, applicant argued that the prior art makes abundantly clear that the transfer factor-like component by Tokoro is something different from transfer factor. This argument is not persuasive because the mere difference in the names does not necessarily make two different materials. Applicant is required to prove that the transfer factor-like component of Tokoro is materially different from the avian transfer factor of the current invention. The examiner takes the position that the transfer factor-like component of Tokoro is the same as the avian transfer factor of the current invention because the transfer factor-like component of Tokoro is obtainable from the same

method and materials used in the production of the avian transfer factor, that is immunization of specific antigen/pathogen into a hen and isolate antibodies smaller than 10,000 Da from eggs.

Claims 16 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramaekers (supra) in view of Singh et al. (J. Assoc. Physicians India, 1998 46(3):299-306; Abstract).

Claims 16 and 65 are drawn to limitations to the antioxidant comprising coenzyme Q10 (claims 16 and 65).

Although Ramaekers does not teach the use of coenzyme Q10 in the composition, it would have been obvious for the person of ordinary skill in the art at the time the invention was made to replace antioxidants such as vitamin E taught by Ramaekers with coenzyme Q10, another well-known antioxidant taught by Singh et al., for the same purpose.

Furthermore, the skilled artisan would have been motivated to make such a modification because Singh et al. teach Coenzyme Q10 deficiency in patients with congestive heart failure and coronary artery disease (see Abstract) and therefore providing a motivation to replace vitamin E with coenzyme Q10 which would be beneficial to cardiovascular disorders.

M.P.E.P. § 2144.06 states "*In re* Ruff, 256 F.2d 590, 118 USPQ 340 (CCPA 1958) (The mere fact that components are claimed as members of a Markush group cannot be relied upon to establish the equivalency of these components. However, an

applicant's expressed recognition of an art-recognized or obvious equivalent may be used to refute an argument that such equivalency does not exist.); *In re* Scott, 323 F.2d 1016, 139 USPQ 297 (CCPA 1963) (Claims were drawn to a hollow fiberglass shaft for archery and a process for the production thereof where the shaft differed from the prior art in the use of a paper tube as the core of the shaft as compared with the light wood or hardened foamed resin core of the prior art. The Board found the claimed invention would have been obvious, reasoning that the prior art foam core is the functional and mechanical equivalent of the claimed paper core. The court reversed, holding that components which are functionally or mechanically equivalent are not necessarily obvious in view of one another, and in this case, the use of a light wood or hardened foam resin core does not fairly suggest the use of a paper core.); Smith v. Hayashi, 209 USPQ 754 (Bd. of Pat. Inter. 1980) (The mere fact that phthalocyanine and selenium function as equivalent photoconductors in the claimed environment was not sufficient to establish that one would have been obvious over the other. However, there was evidence that both phthalocyanine and selenium were known photoconductors in the art of electrophotography. "This, in our view, presents strong evidence of obviousness in substituting one for the other in an electrophotographic environment as a photoconductor." 209 USPQ at 759.). An express suggestion to substitute one equivalent component or process for another is not necessary to render such substitution obvious. In re Fout, 675 F.2d 297, 213 USPQ 532 (CCPA 1982)."

Therefore, the invention as a whole would have been prima facie obvious to a person of ordinary skill at the time the invention was made.

Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramaekers (supra) in view of Tentolouris et al. in light of Pearson et al. (US 6,693,094).

Claim 69 is drawn to a limitation to the arginine and the lysine being derived from magnesium arginate and magnesium lysinate, respectively.

Ramaekers in view of Tentolouris et al. render the limitation of the presence of arginine and lysine in the composition comprising transfer factor, vitamin C and niacinamide obvious (see above).

Although Ramaekers in view of Tentolouris et al. does not teach the source of the arginine being magnesium arginate, since the key element of magnesium arginate is arginine, magnesium arginate is considered as art-recognized equivalent to arginine as evidenced by Pearson et al. Pearson et al. disclose that examples of L-arginine include L-arginine ascorbate, magnesium L-argniate, zine L-arginate and copper L-arginate and their bis-L-arginine and bis-ascorbate forms (see column 8, lines 38-41). Similarly, magnesium lysinate is considered as an art-recognized equivalent of lysine.

M.P.E.P. §2144.06 states "In re Scott, 323 F.2d 1016, 139 USPQ 297 (CCPA 1963) (Claims were drawn to a hollow fiberglass shaft for archery and a process for the production thereof where the shaft differed from the prior art in the use of a paper tube as the core of the shaft as compared with the light wood or hardened foamed resin core of the prior art. The Board found the claimed invention would have been obvious, reasoning that the prior art foam core is the functional and mechanical equivalent of the claimed paper core. The court reversed, holding that components which are functionally

or mechanically equivalent are not necessarily obvious in view of one another, and in this case, the use of a light wood or hardened foam resin core does not fairly suggest the use of a paper core.); Smith v. Hayashi, 209 USPQ 754 (Bd. of Pat. Inter. 1980) (The mere fact that phthalocyanine and selenium function as equivalent photoconductors in the claimed environment was not sufficient to establish that one would have been obvious over the other. However, there was evidence that both phthalocyanine and selenium were known photoconductors in the art of electrophotography. "This, in our view, presents strong evidence of obviousness in substituting one for the other in an electrophotographic environment as a photoconductor." 209 USPQ at 759.)."

Therefore, the invention as a whole would have been prima facie obvious to a person of ordinary skill at the time the invention was made.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taeyoon Kim whose telephone number is 571-272-9041. The examiner can normally be reached on 8:00 am - 4:30 pm ET (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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